

# Esercizio S2/L2

## Obiettivi:

- Visualizzare e filtrare i processi mostrati con top;
- Creare una cartella con un file txt al suo interno. Modificare il file con nano, cambiare i suoi permessi e spostarlo nella cartella di root (/). Una volta fatto ciò creare un altro utente e verificare che non possa leggere il file, dopodiché dare il permesso di lettura al file e verificare che l'utente lo possa leggere.

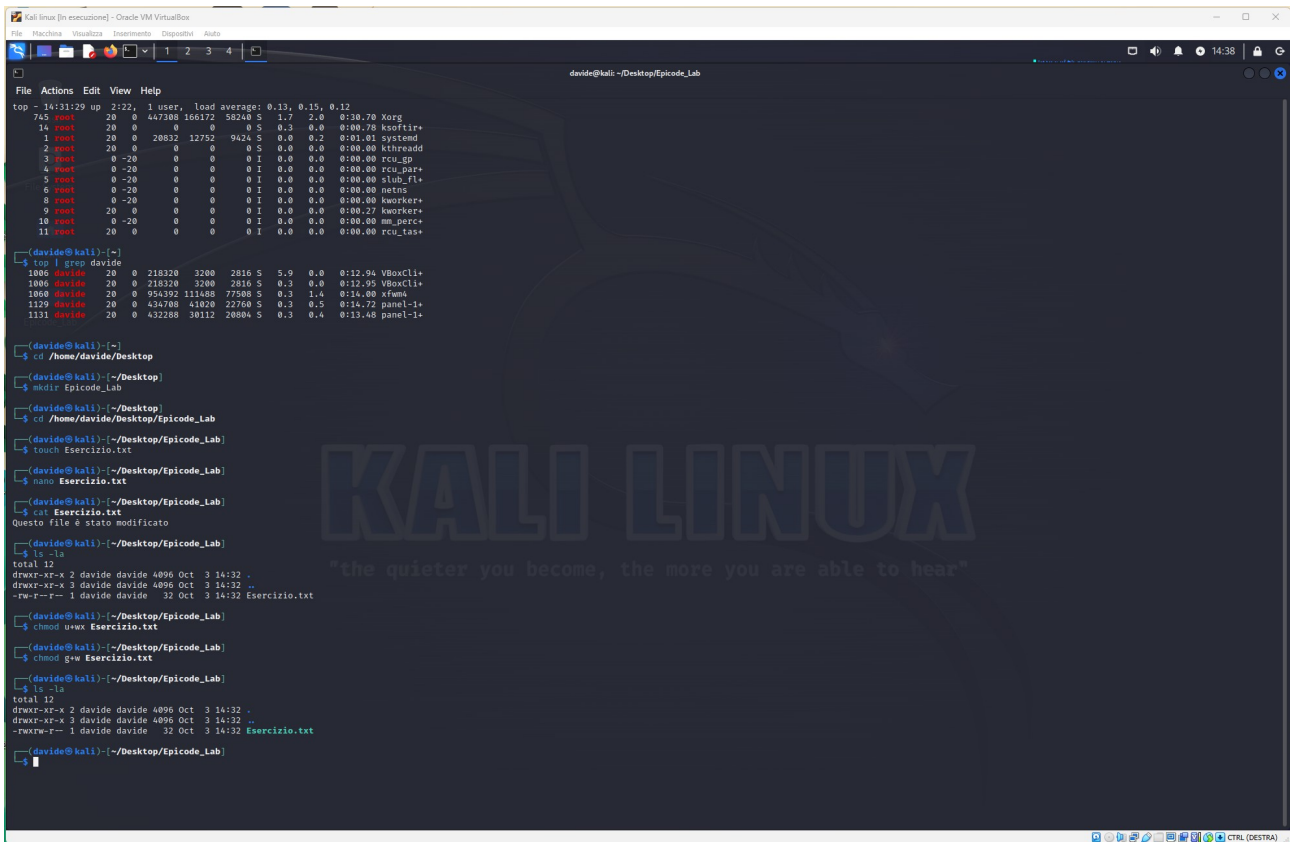
Una volta terminato tutto cancellare la cartella, il file e l'utente creato.

- 1) Ho lanciato il comando top per vedere i processi in esecuzione. Il PID è il numero che identifica il processo, USER è l'utente che sta eseguendo il processo e COMMAND è il comando che viene eseguito

```
top - 14:30:53 up 2:21, 1 user, load average: 0.09, 0.15, 0.12
Tasks: 153 total, 1 running, 152 sleeping, 0 stopped, 0 zombie
Cpu(s): 0.7 us, 1.0 sy, 0.4 ni, 97.5 id, 0.0 wa, 0.0 hi, 0.5 si, 0.0 st
MiB Mem : 7941.3 total, 6785.0 free, 912.5 used, 481.9 buff/cache
MiB Swap: 975.0 total, 975.0 free, 0.0 used, 7028.6 avail Mem

  PID USER      PR  NI  VIRT  RES  SHR  S  %CPU  %MEM     time+ COMMAND
 745 root        20   0 447388 186172 58248 S   1.0  2.0   0:10.21 Xorg
1000 davide     20   0 218320 3280 2816 S   0.3  0.0   0:12.06 VBoxClient
1099 davide    20   0 385500 29704 19988 S   0.3  0.4   0:00.87 xfsettingsd
1121 davide    20   0 490596 64804 36348 S   0.3  0.8   0:01.43 xfdesktop
    1 root        20   0 20832 12752 9424 S   0.0  0.2   0:01.01 systemd
    2 root        20   0 0 0 0 S   0.0  0.0   0:00.00 kthreadd
    3 root        0 -20 0 0 0 I   0.0  0.0   0:00.00 rcu_gp
    4 root        0 -20 0 0 0 I   0.0  0.0   0:00.00 rcu_par_gp
    5 root        0 -20 0 0 0 I   0.0  0.0   0:00.00 slub_flushwq
    6 root        0 -20 0 0 0 I   0.0  0.0   0:00.00 netns
    8 root        0 -20 0 0 0 I   0.0  0.0   0:00.00 kworker/0:0H-events_highpri
    9 root        20   0 0 0 0 I   0.0  0.0   0:00.27 kworker/u4:0-flush-8:0
   10 root        0 -20 0 0 0 I   0.0  0.0   0:00.00 mm_percpu_wq
   11 root        20   0 0 0 0 I   0.0  0.0   0:00.00 rcu_tasks_kthread
   12 root        20   0 0 0 0 I   0.0  0.0   0:00.00 rcu_tasks_rude_kthread
   13 root        20   0 0 0 0 I   0.0  0.0   0:00.00 rcu_tasks_trace_kthread
   14 root        20   0 0 0 0 S   0.0  0.0   0:00.77 ksftirqd/0
   15 root        20   0 0 0 0 I   0.0  0.0   0:01.84 rcu_preempt
   16 root        0  99 0 0 0 S   0.0  0.0   0:00.00 migration/0
   17 root       -51   0 0 0 0 S   0.0  0.0   0:00.00 idle_inject/0
   19 root        20   0 0 0 0 S   0.0  0.0   0:00.00 cpuhp/0
   20 root        20   0 0 0 0 S   0.0  0.0   0:00.00 cpuhp/1
   21 root       -51   0 0 0 0 S   0.0  0.0   0:00.00 idle_inject/1
   22 root        0  99 0 0 0 S   0.0  0.0   0:00.45 migration/1
   23 root        20   0 0 0 0 S   0.0  0.0   0:00.37 ksftirqd/1
   27 root        20   0 0 0 0 I   0.0  0.0   0:01.09 kworker/u4:1-writeback
   28 root        20   0 0 0 0 S   0.0  0.0   0:00.00 kdevtmpfs
   29 root        0 -20 0 0 0 I   0.0  0.0   0:00.00 inet_frag_wq
   30 root        20   0 0 0 0 S   0.0  0.0   0:00.00 kauditd
   31 root        20   0 0 0 0 S   0.0  0.0   0:00.00 khungtaskd
   32 root        20   0 0 0 0 S   0.0  0.0   0:00.00 oom_reaper
   34 root        0 -20 0 0 0 I   0.0  0.0   0:00.00 writeback
   35 root        20   0 0 0 0 S   0.0  0.0   0:00.40 kcompactd0
   36 root       25   5 0 0 0 S   0.0  0.0   0:00.00 ksmd
   37 root       39  19 0 0 0 S   0.0  0.0   0:00.24 khugepaged
   38 root        0 -20 0 0 0 I   0.0  0.0   0:00.00 kintegrityd
   39 root        0 -20 0 0 0 I   0.0  0.0   0:00.00 kblockd
   40 root        0 -20 0 0 0 I   0.0  0.0   0:00.00 blkcg_punt_bio
   41 root        0 -20 0 0 0 I   0.0  0.0   0:00.00 tps_dev_wq
   42 root        0 -20 0 0 0 I   0.0  0.0   0:00.00 edac-poller
```

- 2) Ho filtrato l'output di top in base all'utente root e all'utente davide. Una volta terminato ho creato la cartella col file al suo interno ed ho provveduto a cambiargli i permessi, ho modificato il file con nano e con cat ho mostrato l'output.



```
File Actions Edit View Help
top - 14:31:29 up 2:22, 1 user, load average: 0.13, 0.15, 0.12
745 root      20  0 447368 166172 38240 S  1.7 2.0  0:30.70 Xorg
14 root      20  0  0  0  0  0  0.3  0.0  0:00.78 ksoffir+
1 root       20  0 20832 12752  9424 S  0.0 0.2  0:01.01 systemd
2 root       20  0  0  0  0  0  0.0  0.0  0:00.00 kthreadd
3 root       20  0  0  0  0  0  0.1  0.0  0:00.00 rcu_gp
4 root       20  0  0  0  0  0  0.1  0.0  0:00.00 rcu_par+
5 root       20  0  0  0  0  0  0.1  0.0  0:00.00 slab_fl+
6 root       20  0  0  0  0  0  0.1  0.0  0:00.00 netns
8 root       20  0  0  0  0  0  0.1  0.0  0:00.00 kworker+
9 root       20  0  0  0  0  0  0.1  0.0  0:00.27 kworker+
10 root      20  0  0  0  0  0  0.1  0.0  0:00.00 mm_perc+
11 root      20  0  0  0  0  0  0.1  0.0  0:00.00 rcu_tas+

[davide@kali:~]$
top | grep davide
1086 davide   20  0 218320 3200 2816 S  5.9 0.0  0:12.94 VBoxCli+
1086 davide   20  0 218320 3200 2816 S  0.3 0.0  0:12.95 VBoxCli+
1808 davide   20  0 954392 111488 77588 S  0.3 1.6  0:14.00 xfwmt
1129 davide   20  0 434788 41020 22760 S  0.3 0.5  0:16.72 panel-1+
1131 davide   20  0 432288 30112 20804 S  0.3 0.4  0:13.48 panel-1+

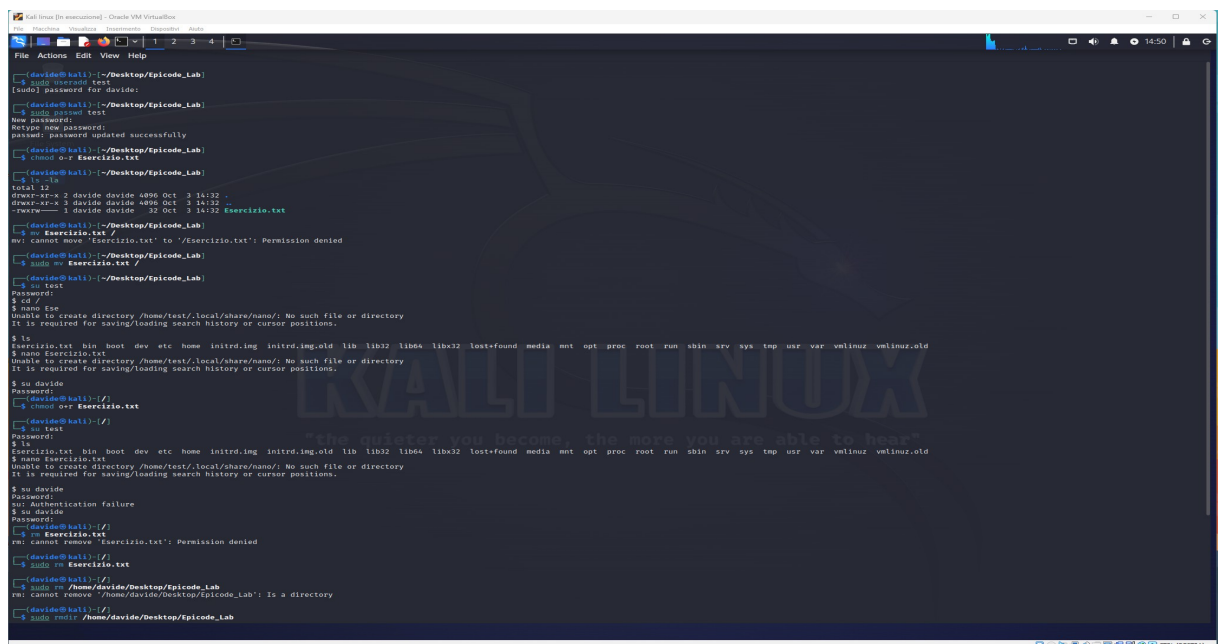
[davide@kali:~]$
cd /home/davide/Desktop
[davide@kali:~/Desktop]$
mkdir Epicode_Lab
[davide@kali:~/Desktop]$
cd /home/davide/Desktop/Epicode_Lab
[davide@kali:~/Desktop/Epicode_Lab]$
touch Esercizio.txt
[davide@kali:~/Desktop/Epicode_Lab]$
nano Esercizio.txt
[davide@kali:~/Desktop/Epicode_Lab]$
cat Esercizio.txt
Questo file è stato modificato

[davide@kali:~/Desktop/Epicode_Lab]$
ls -la
total 12
drwxr-xr-x 2 davide davide 4096 Oct 3 14:32 .
drwxr-xr-x 3 davide davide 4096 Oct 3 14:32 ..
-rw-r--r-- 1 davide davide 32 Oct 3 14:32 Esercizio.txt

[davide@kali:~/Desktop/Epicode_Lab]$
chmod uwx Esercizio.txt
[davide@kali:~/Desktop/Epicode_Lab]$
chmod g+w Esercizio.txt
[davide@kali:~/Desktop/Epicode_Lab]$
ls -la
total 12
drwxr-xr-x 2 davide davide 4096 Oct 3 14:32 .
drwxr-xr-x 3 davide davide 4096 Oct 3 14:32 ..
-rwxr--r-- 1 davide davide 32 Oct 3 14:32 Esercizio.txt

[davide@kali:~/Desktop/Epicode_Lab]$
```

- 3) Ho creato l'utente test con useradd e ho spostato il file nella cartella di root. Con nano sono andato a verificare che non ne vedessi il contenuto dopo aver cambiato l'utente corrente. Successivamente ho cambiato nuovamente utente per aggiungere il permesso di scrittura al file da parte di altri, sono ritornato sull'utente di test e ho controllato con nano se fosse tutto ok. Infine ho cancellato la cartella e il file.



```
[davide@kali:~/Desktop/Epicode_Lab]$
$ sudo useradd test
[sudo] password for davide:
[davide@kali:~/Desktop/Epicode_Lab]$
$ sudo passwd test
New password:
Retype new password:
passwd: password updated successfully

[davide@kali:~/Desktop/Epicode_Lab]$
$ chmod o-r Esercizio.txt
[davide@kali:~/Desktop/Epicode_Lab]$
ls -la
total 12
drwxr-xr-x 2 davide davide 4096 Oct 3 14:32 .
drwxr-xr-x 3 davide davide 4096 Oct 3 14:32 ..
-rwxr--r-- 1 davide davide 32 Oct 3 14:32 Esercizio.txt

[davide@kali:~/Desktop/Epicode_Lab]$
$ mv Esercizio.txt /
mv: cannot move 'Esercizio.txt' to '/Esercizio.txt': Permission denied

[davide@kali:~/Desktop/Epicode_Lab]$
$ sudo mv Esercizio.txt /
[sudo] password for davide:
Unable to create directory /home/test/.local/share/nano/: No such file or directory
It is required for saving/loading search history or cursor positions.

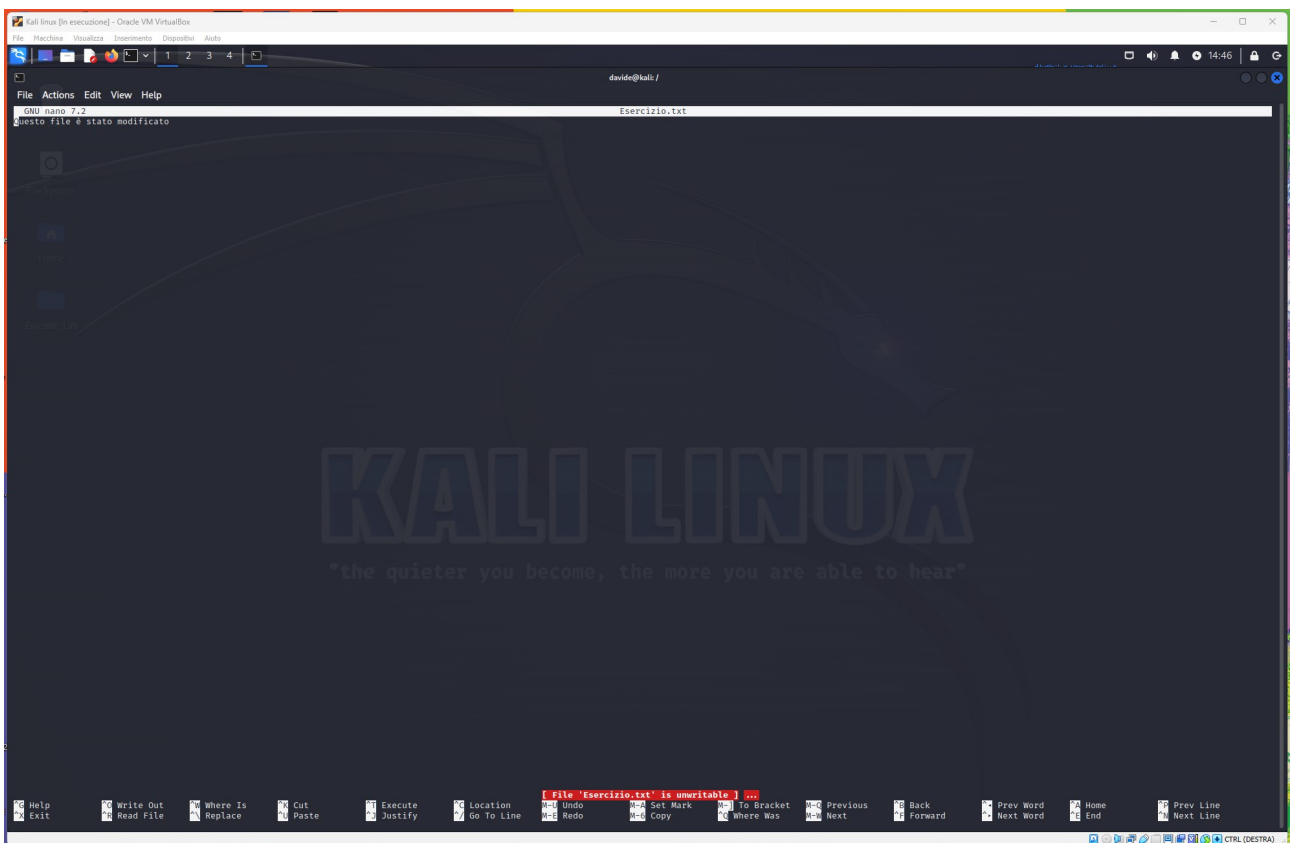
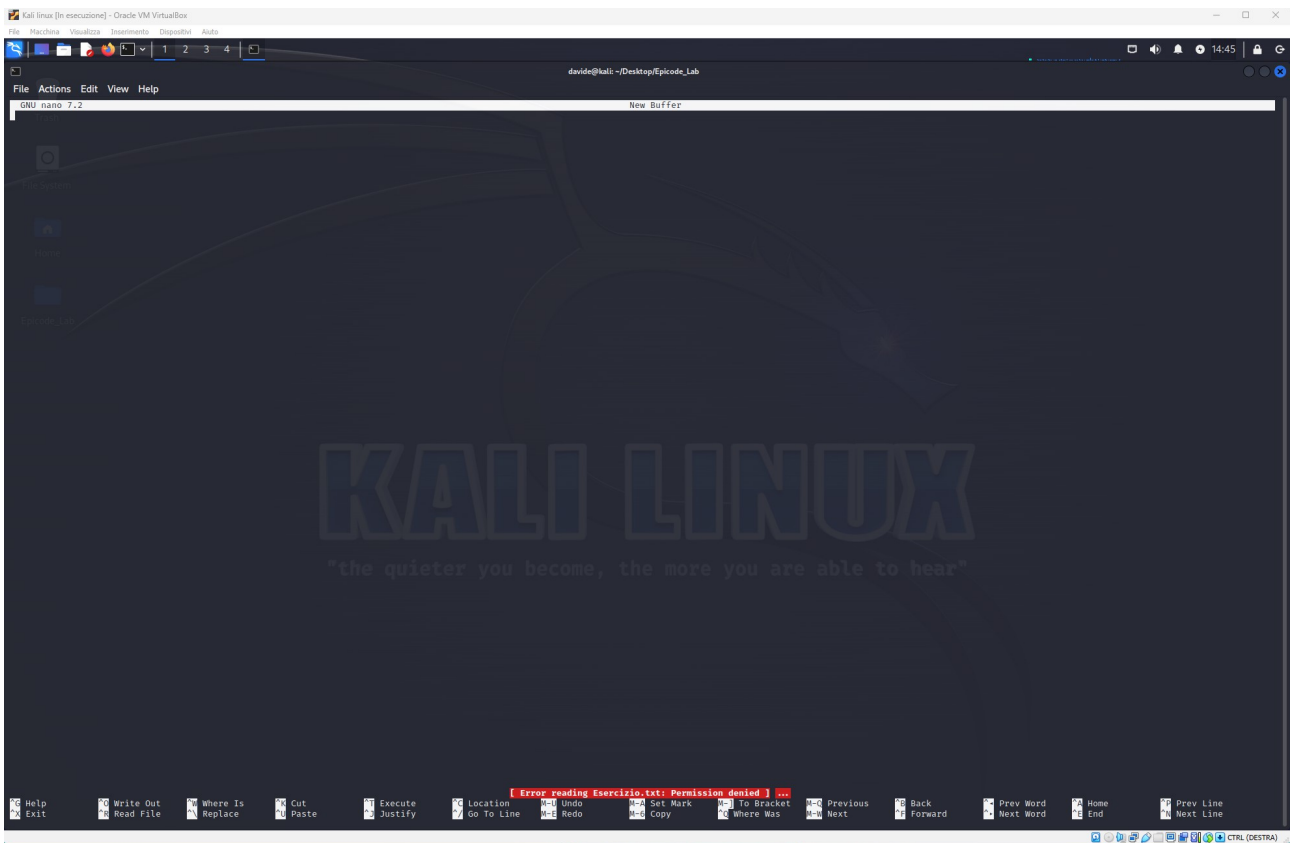
$ ls
Esercizio.txt bin boot dev etc home initrd.img initrd.img.old lib lib32 lib64 lib32 lost-found media mnt opt proc root run/sbin/srv/sys/tmp/usr/var/vmlinuz/vmlinuz.old
$ nano Esercizio.txt
Unable to create directory /home/test/.local/share/nano/: No such file or directory
It is required for saving/loading search history or cursor positions.

$ su davide
Password:
davide@kali:~/Desktop/Epicode_Lab$
$ cd /
$ ls
$ nano Esercizio.txt
[sudo] password for test:
$ su test
test@kali:~$
$ ls
$ nano Esercizio.txt
Unable to create directory /home/test/.local/share/nano/: No such file or directory
It is required for saving/loading search history or cursor positions.

$ su davide
Password:
su: Authentication failure
$ su davide
Password:
davide@kali:~/Desktop/Epicode_Lab$
$ rm Esercizio.txt
rm: cannot remove 'Esercizio.txt': Permission denied

[davide@kali:~/Desktop/Epicode_Lab]$
$ rm -rf Esercizio.txt
[davide@kali:~/Desktop/Epicode_Lab]$
$ rm -rf /home/davide/Desktop/Epicode_Lab
rm: cannot remove '/home/davide/Desktop/Epicode_Lab': Is a directory

[davide@kali:~/Desktop/Epicode_Lab]$
$ rm -rf /home/davide/Desktop/Epicode_Lab
```



#### 4) Ho cancellato l'utente di test

